

Notice of Allowability**Application No.**

10/099,670

Examiner

Susan W Berman

Applicant(s)

SAMARANAYAKE, GAMINI S.

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 13, line 1, change "curable" to "cured".

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The prior art cited herein and otherwise known to the examiner does not teach or suggest a radiation curable aqueous composition comprising components (A), (C), (D) and (E) in the weight percents as set forth in the instant claims and also comprising from about 10.0 % to about 50.0 % by total weight of a monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group.

The following references were cited by applicant:

WO 99/42296 discloses photopolymerizable compositions for use as ink receptive coatings including 10-50 wt. % of a reactive monomer, 50 to 90 wt. % of an ink-receptive polymer soluble in the monomer and a photoinitiator. An especially preferred monomer is an amino-methacrylate. Example 1 discloses a composition comprising a urethane diacrylate oligomer. However, the polymers disclosed, such as water-soluble PVP/VA, do not correspond to the instantly claimed water-insoluble cationic acrylic latexes or water-insoluble styrenic latexes.

EP 0 738 608 discloses compositions comprising a water-soluble high molecular weight compound having a cationic group (P1) and a polyfunctional hydrophilic monomer or oligomer having

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two or more (meth)acryloyl groups (P3). The compounds (P3) correspond to the instantly claimed oligomers, however, the compounds (P1) do not correspond to the instantly claimed component (C). A monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group is not mentioned.

Kawano et al (5,478,631) disclose an ink jet recording sheet comprising a substrate and an ink receptive layer, wherein the ink receptive layer is an aqueous compositions comprising a pigment and amphi-ion latex. Crosslinker additives are mentioned but no acrylate functional oligomers or monomers are mentioned. A monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group is not mentioned.

The closest prior art in addition to the art cited in the instant specification is discussed herein below:

Vanderhoff et al (5,830,927) disclose aqueous printing ink compositions comprising acrylated oligomers and monomers, a water-soluble polymer and a photoinitiator. A monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group is not mentioned.

Kojima et al (4,542,088) disclose photopolymerizable compositions comprising an organic solvent-soluble ethylenically unsaturated compound, an organic solvent-dispersible water-insoluble granular dispersion, such as a cationic acrylic or styrenic latex, and an organic solvent soluble photoinitiator. A monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group is not mentioned.

Hermes et al (5,922,398) disclose aqueous coating compositions containing a latex having pendant amine-functional groups and a T_g greater than about 0° C. No acrylate functional compounds are mentioned. A monomer containing at least one ethylenically unsaturated group and at least one quaternary amine group is not mentioned.

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Welsh et al (4,380,601) disclose thermosetting cationic acrylic lattices and coating composition comprising the lattices and a blocked isocyanate curing agent.

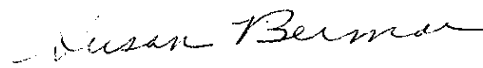
Das et al (4,476,286) disclose thermosetting cationic acrylic lattices and coating composition comprising the lattices and an aminoplast curing agent.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 273 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703 308 2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.



Susan W Berman
Primary Examiner
Art Unit 1711

SB
12/12/03